

Work Order ID 116464

116464

Page 1

April-16-14 11:01:12 AM

Item ID: D407-667-205

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Aft Crosstube

Start Date: 4/16/14 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 5/01/14 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: MLS Date: 14-04-16

Tooling:

Date:

Run Start *NR1*

QC: _____ Date: _____

SPC (Y/N): _____

Date: _____

Stop *NR2*

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D407-667-245

Rev F/DEO

100

Document Control

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile and create labels as per PPP D407-667-205 CHG008

DAS
28
9-89

MAY 14 2014

110

Pick Kit

0.00

110

Packaging

Packaging

Memo

0.00

Packaging

JW 14-04-21

120

BENDING MACHINE - CROSSTUBES

0.00

120

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

1-Bend tube as per Dwg D407-667-245 using CNC bender program 407 Aft and Folio 21

JW 14-04-21

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Item ID: D407-667-205

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Start Date: 4/16/14 Start Qty: 1.00 ***1***

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursTool ID Tool # Plan
Code Accept Reject Reject Insp.
Qty Qty Number Stamp

130

QC15- Crosstube Dimensional Check

0.00

130

QC

Memo

0.00

Quality Control

DAS
03
9-89

DP 14422



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Item ID: D407-667-205

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N900040100

Setup Start *NS1*

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Start Date: 4/16/14 Start Qty: 1.00 *1*

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Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

0.00

140

Crosstubes

Crosstubes

Crosstubes

Memo

0.00

***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING*****
VERIFIED BY: SW *****

1-Drill pilot holes in tube using drill Jig DT8583 & DT8584 as per Dwg D407-667-245. Drill all (3) top holes. Holes facing inboard. Drill and Ream all holes in tube to finish size using drill Jig DT8583 & DT8584 as per Dwg D407-667-245

***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING*****
VERIFIED BY: SW *****2- Drill fwd rivet holes using drill Jig DT8787 fwd as per Dwg D407-667-245.
Note: FWD side has 3X top holes facing inboard.

3- C'sink holes as per dwg D407-667-245. Allow rivet to sit below surface to compensate for paint.

4- Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins. Drill ONLY 2 top holes ONLY plug most bottom hole to prevent accidental drilling. Drill holes and ream using drill Jig DT8583 & DT8584 as per Dwg D407-667-245. Drill only the top (2) holes. Drill & ream the top (2) holes to finish size using drill Jig DT8583 & DT8584 as per Dwg D407-667-245

***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING*****
VERIFIED BY: SW *****

5-Drill aft rivet holes using drill Jig DT8787 aft as per Dwg D407-667-245.

PSV/25

14-04-24

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Item ID: D407-667-205

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Setup Start ***NS1***

Revision ID:

Item Name: Aft Crosstube

Stop ***NS2***

Start Date: 4/16/14 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 5/01/14 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

Drill only the top (2) holes.

***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING*****
VERIFIED BY: *[Signature]* *****

6- C'sink holes as per dwg D407-667-245. Allow rivet to sit below surface to compensate for paint.

7- Scribe tube to identify on the inner chamfer in the cuff D# and B#

8-*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***Deburr
& Inspect for surface damage. Repair damage within limits as per Dwg D407-667-245

[Handwritten: BL/28] *[Handwritten: 14-04-24]*

[Handwritten: EB] *[Handwritten: 14-04-28]*

150

QC5- Inspect part completeness to step on W/O

0.00

150

QC

Memo

0.00

Quality Control

*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***

DAS
27
8-89
[Handwritten: 14/4/28]

Work Order ID 116464

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Page 5

Item ID: D407-667-205

Revision ID:

Item Name: Aft Crosstube

Start Date: 4/16/14

Start Qty: 1.00

1

Required Date: 5/01/14

Req'd Qty: 1.00

1

Reference:

Accept

N900040100

Setup Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

NR1

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

160

HandFXtube

Hand Finishing Crosstubes

Memo

*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***

1- CLEAN CROSSTUBE WITH WASH'N WIPE

0.00

0.00

1

0

0

AS

14-4-29

180

180

Outsource2

Outsource process - NDT

Outsource process - NDT per QSI038 4.1

Memo

*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***

Liquid Penetrant Inspection as per QSI 0380
Issue P/O 23989 LPI as per ASTM 1417
Level 2 Attach copy of NDT results to work order

0.00

0.00

CX 14/04/29 ①

190

190

Packaging

Packaging

Packaging

Memo

*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***

Ensure copy of NDT results attached to work order.

0.00

0.00

14/4/29 ①

Work Order ID 116464

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Item ID: D407-667-205

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Aft Crosstube

Start Date: 4/16/14

Start Qty: 1.00

1

Cust Item ID:

Required Date: 5/01/14

Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursTool ID
DAS
27
9-89

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

200

QC5- Inspect part completeness to step on W/O

0.00

200

QC

Memo

0.00

Quality Control

*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***

14/4/29

204

0.00

204

HandFXtube

Memo

0.00

Hand Finishing Crosstubes

*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***

1- PRESSURE WASH AND THEN USE WASH'N WIPE TO CLEAN
CROSSTUBE BEFORE CHEMICAL CONVERSION

BLSW 14-04-29

206

QC7-Inspect Chemical Conversion Coat

0.00

206

QC

Memo

0.00

Quality Control

*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***

14/5/11

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Item ID: D407-667-205

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Aft Crosstube

Start Date: 4/16/14 Start Qty: 1.00

1

Cust Item ID:

Required Date: 5/01/14 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

210

0.00

210

SprayPaint

SprayPaint

Memo

0.00

Spray Painting

*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***

Mask underside of crosstube as shown

1-Prime inside and outside crosstube as per DEO D407-667-245 and QSI 005 4.2

2-Paint outside crosstube with White Imron as per QSI 005 4.2

PRIME: 124 403

Start Time: 8:00

Finish Time: 8:30

PAINT: 1128 574

Start Time: 3:00

Finish Time: 3:30

220

0.00

220

QC14- Inspect Spray Paint

QC

Memo

0.00

Quality Control

Then, Wrap in plastic bag to protect from scratches

CR 140501

CR 1405-10 7th

Non-Conformance Report

| |
|-----------------|
| Reviewed |
| DQA: |
| Date: |

Printed on: Friday, May 02, 2014

| | | | |
|--|---|---|--|
| Details | | | |
| Raised Date 5/2/2014 | Status Open | Owner Forbes, Nigel | Number NCR14-3817 |
| Target Date 5/19/2014 | Standard | | Severity MAJOR |
| Process Employee Suggestion | | Audit | |
| Raised By Person Downing, Eric M | Raised Against (Department or Supplier) Manufacturing | | Fault Category General\BOM/Route |
| Details was noticed by painter that he did not mask center strip in D407-667-205 inspection window on qty x 4 cross tubes B116464, B116463, B112864, B116461 | | | |
| Keywords inspection window | | Product D206-667\D407-667-205 | |
| Document | | Root Cause | |
| Closed By | Closed Date | Resolution | |

| | | | |
|---------------------------------|---------------------------------|--------------------|------------------|
| Corrective Action | | | |
| Target Date 5/19/2014 | Owner Downing, Eric M | Closed Date | Closed By |
| Details | | | |

| | | | |
|---|-----------------------------|--------------------|-----------------------|
| Actions | | | |
| Number | Owner | Target Date | Completed Date |
| Details | | Response | |
| 1 | White, Jesse | 5/9/2014 | |
| using a line mate grinder buff longitudinally the paint & primer on the inside bend of the cross tube as specified in the drawing | | JW 14-05-04 | |
| 2 | Murdoch, Matthew | 5/9/2014 | |
| scuff / sand paint lightly to help blend in | | AR 14-5-4 | |
| 3 | Murdoch, Matthew | 5/9/2014 | |
| re alodine area as per QSI 005 | | JP | |

| | | | |
|---|------------------|------------------------|--|
| 4 | Murdoch, Matthew | 5/9/2014 | |
| re prime as per Dwg & per QSI 005 128826 | | AR 14-5-9 | |
| 5 | Murdoch, Matthew | 5/9/2014 | |
| per paint per Dwg & QSI 005 and re clear coat 128840 128464 | | AR 14-5-9 (CR 1405-10) | |
| 6 | Duval, David | 5/16/2014 | |
| update all cross tube work orders to have priming & painting as two different steps | | | |

Verification & Review

| Target Date | Owner | Closed Date | Closed By |
|-------------|-------|-------------|-----------|
| Details | | | |

Actions

| Number | Owner | Target Date | Completed Date |
|---------|-------|-------------|----------------|
| Details | | Response | |
| | | | |
| | | | |

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Item ID: D407-667-205

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Aft Crosstube

Start Date: 4/16/14 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 5/01/14 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

230

0.00

230

Crosstubes

Crosstubes

Crosstubes

Memo

0.00

1- Install chafing shield as per DEO D407-667-245. Top holes should be facing up.

A/R Proseal 890 Batch: 128712
EXP: 10/14

2- Lightly scuff the bonded area using a 320 grit sand paper and clean the area with 41058 wash 'n' wipe

3- Install support with Scotch-Weld DP460 and install clamps as per DEO Dwg D407-667-245 using installation jig DT9025. Torque clamps as per dwg

A/R Scotch-Weld DP460 Batch: M128480
EXP: 15/03

LET CURE FOR 24 HOURS

CURE TIME:

START: 14-5-12

FINISH: 14-5-13

4- Install nut plates as per Dwg D407-667-245. Touch-up rivet heads with Imron paint.

1 0 0 14-5-13

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| | | | | | | |
|----------------|---------------|------------|---------------------|---------------|-------|--------------|
| Item ID: | D407-667-205 | Accept | *N900040100* | Setup | Start | *NS1* |
| Revision ID: | | | | | Stop | *NS2* |
| Item Name: | Aft Crosstube | | | | | |
| Start Date: | 4/16/14 | Start Qty: | 1.00 | Cust Item ID: | | |
| Required Date: | 5/01/14 | Req'd Qty: | 1.00 | Customer: | | |
| Reference: | | | | | | |

| | | | | | | | |
|------------|---------------|-------|------------|-------|-----|-------|--------------|
| Approvals: | Process Plan: | Date: | Tooling: | Date: | Run | Start | *NR1* |
| | QC: | Date: | SPC (Y/N): | Date: | | Stop | *NR2* |

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 240 | QC5- Inspect part completeness to step on W/O | 0.00 | | | | | | | |
| *240* | | | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | ***RE-CHECK TORQUE ON CLAMPS AFTER ADHESIVE HAS CURE FOR 24HOURS AS PER DWG DEO*** | | | | | | | | |
| 250 | Pick Kit | 0.00 | | | | | | | |
| *250* | | | | | | | | | |
| Packaging | Memo | 0.00 | | | | | | | |
| Packaging | | | | | | | | | |
| 260 | QC4- 100% Inspect kits for completeness | 0.00 | | | | | | | |
| *260* | | | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |

68-6
90
DAS

IX

DAS
28
9-89

MAY 14 2014

~~075
32
9-89~~

Work Order ID 116464

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Item ID: D407-667-205

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Aft Crosstube

Start Date: 4/16/14 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 5/01/14 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|---|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 270 | | 0.00 | | | | | | | |
| *270* | Packaging | | | | | | | | |
| Packaging | Memo | 0.00 | | | | | | | |
| Packaging | Identify and in kanban rack Location: <u>113</u> | | | | | | | | |
| 280 | | 0.00 | | | | | | | |
| *280* | QC21- Final Inspection - Work Order Release | | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |

DAS
28
9-89DAS
06
9-89

MAY 15 2014

14/5/15

14-5-15

Picklist Print

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Work Order ID: 116464

116464

Parent Item: D407-667-205

D407-667-205

Parent Item Name: Aft Crosstube

Start Date: 4/16/14

Required Date: 5/01/14

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:C 05.09.02 Add holes for compatibility with Bell SkidtubesKJ/JLM
IPP Rev:D Added Magnobond,Rubber Cushion & Clamps 07-02-19
JLM

****CHANGE TO CHG 005 - IF USING D2894-1 B35578 OR GREATER****

IPP Rev:E 08-05-22 add comment in seq. 6 and QC15 and QC5 DD verified by:EC

IPP Rev:F 08-06-12 add comment in seq. 24 DD verified by:EC

IPP Rev:G 08-08-19 revE as per dwg DD verified by:EC

IPP Rev H 09.01.06 ECN 08-562 EC verified by:DD IPP Rev:I

10.04.07 revise route seq. in bom DD verified by:JLM IPP Rev J 11.04.26

removed abrasion strip ecn 11-551 EC verified

by:DD

IPP REV:K

11.10.03 DEO D407-667-245-F-2 DD verf:EC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| D407-667-205TRN | | Manufactured | No | | | 110 | Each | 10.0000 | 1 | 1 | | | |

D407-667-205TRN

**

Crosstube Turning Detail

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| LG | 3 | |
| 105222 | 1 | |
| 115331 | 1 | |
| 115363 | 1 | |
| LG014 | 7 | |
| 105224 | 1 | |
| 105225 | 1 | |
| 108604 | 1 | |
| 108606 | 1 | |
| 108607 | 1 | |
| 115332 | 1 | |
| 115334 | 1 | |

14-04-21

Picklist Print

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Parent Item: D407-667-205

D407-667-205

Parent Item Name: Aft Crosstube

Start Date: 4/16/14

Required Date: 5/01/14

Start Qty: 1.00

Required Qty: 1.00

D2873-043

Manufactured No

230

Each

116.0000

2

2

D2873-043

Nut Plate Assembly

CR 14-05-01

Location

Loc Qty

Loc Code

LG052

116

104871

1

107964

10

112264

25

113050

40

114550

40

2

D2873-045

Manufactured No

230

Each

119.0000

2

2

D2873-045

Nut Plate Assembly

CR 14-05-01

Location

Loc Qty

Loc Code

LG

34

112430

34

LG052

85

108829

5

113144

40

113886

40

2

D2894-1

Manufactured No

230

Each

18.0000

1

1

D2894-1

2.75 Support

CR 14-05-11

Location

Loc Qty

Loc Code

LG052

18

103950

2

105623

6

113132

10

1

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D407-667-205

Parent Item Name: Aft Crosstube

Start Date: 4/16/14

Required Date: 5/01/14

Start Qty: 1.00

Required Qty: 1.00

D3190-1

Manufactured No

230

Each

43.0000

2

2

D3190-1

Chaffing Shield

**

AR 14-5-13

Location

Loc Qty

Loc Code

LG053

43

105834

29

109948

14

D3595-063-450

Manufactured No

230

Each

85.0000

2

2

D3595-063-450

Rubber Cushion

**

CR 14-05-11

Location

Loc Qty

Loc Code

FG

15

88422

5

94274

10

LG

15

111538

15

LG051

55

109526

2

113323

28

115271

25

MS20601-AD4W8

Purchased No

230

Each

653.0000

14

14

MS20601-AD4W8

RIVET

**

CR 14-05-01

Location

Loc Qty

Loc Code

ST311

653

M126637

24

M127813

129

M128429

200

M128650

300

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116464

Parent Item: D407-667-205

D407-667-205

Parent Item Name: Aft Crosstube

Start Date: 4/16/14

Required Date: 5/01/14

Start Qty: 1.00

Required Qty: 1.00

MS21920-22

Purchased

No

230

Each

307.0000

4

4

MS21920-22

Clamp

**

AL 14-5-13

Location

Loc Qty

Loc Code

LG

200

M128636

200

LG050

107

M127255

40

M127608

19

M128199

48

MS21920-25

Purchased

No

230

Each

86.0000

2

2

MS21920-25

Clamp

**

CR 14-05-11

Location

Loc Qty

Loc Code

FG

2

120920

2

LG050

84

M127823

25

M128012

9

M1285701

25

M128718

25

NAS1149D0563J

Purchased

No

230

Each

4,532.000

18

18

NAS1149D0563.J

Washer

**

DAS 32 14/07/14 9-89

Location

Loc Qty

Loc Code

GA

201

m125807

201

ST510a

4331

m126319

2331

m128257

2000

DAS 28 9-89

m126319

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D407-667-205

Parent Item Name: Aft Crosstube

Start Date: 4/16/14

Required Date: 5/01/14

Start Qty: 1.00

Required Qty: 1.00

AN5-10A

Purchased

No

250

Each

674.0000

10

10

DAS
32
9-89

AN5-10A

BOLT

**

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

101

122800

101

ST362

366

M127432

66

M128634

300

st503

207

M126180

207

M128634

AN5-32A

Purchased

No

250

Each

446.0000

4

4

DAS
32
9-89

AN5-32A

Bolt

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST337

114

124215

110

m127363

4

st503

182

m127550

30

m128403

152

ST504

150

m128634

150

M128403

14/15/14

April-16-14 11:01:16 AM

Shop Packet Print

Page 5

Picklist Print

April-16-14 11:01:16 AM

Page 6

Work Order ID: 116464

116464

Parent Item: D407-667-205

D407-667-205

Parent Item Name: Aft Crosstube

Start Date: 4/16/14

Required Date: 5/01/14

Start Qty: 1.00

Required Qty: 1.00

AN5-34A

Purchased

No

250

Each

206.0000

4

4

AN5-34A

Bolt

DAS
32
9-89

D
C
9-89

Location

Loc Qty

Loc Code

ST338

106

m126176

6

m127817

14

m127933

36

m128403

50

st503

100

m128634

100

m127733

DAS
28
9-89

MS21042L5

Purchased

No

250

Each

1,603.000

4

4

MS21042L5

Nut

DAS
32
9-89

14/05/14 (1)

Location

Loc Qty

Loc Code

GA

5

117611

5

ST315

98

m127304

98

ST509

1500

m127813

500

m128810

1000

m128810

DAS
28
9-89

April-16-14 11:01:16 AM

Shop Packet Print

Page 6

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

| | | | | | | | | | | | | | | | | | | |
|--|--|---|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--|----------------------------------|--|------------------------------------|--|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Work Order: _____ Part No. _____ NCR No. _____ | DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/> | AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td style="width: 25%;">Skid-tube <input type="checkbox"/></td> <td style="width: 25%;">Crosstube <input type="checkbox"/></td> <td style="width: 25%;">Water Jet <input type="checkbox"/></td> <td style="width: 25%;">Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | |
| Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | | | | | | | | | | | | | | | |

| Root Cause | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|---|-------------------|--------------------|-------------|--------------|--------------|
| Design | | | | | | | | | |
| Doc/Data | | | | | | | | | |
| Equip/Tooling | | | | | | | | | |
| Handling/Pre | | | | | | | | | |
| Material | | | | | | | | | |
| Operator | | | | | | | | | |
| Offset/Setup | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Transport | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| | | | |
|--|--|---|--|
| Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube | General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function | <input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence | <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other |
|--|--|---|--|

| Item | QTY -245 | PART NUMBER | DESCRIPTION |
|------|-------------|----------------|--|
| 1 | X | D407-667-245 | CROSSTUBE ASSEMBLY (407 HIGH AFT) |
| 2 | 1 | D6011-115 | CROSSTUBE |
| 3 | 2 | D2856-400-773 | ABRASION STRIP |
| 4 | 2 | D2873-043 | NUT PLATE |
| 5 | 2 | D2873-045 | NUT PLATE |
| 6 | 1 | D2894-1 | SUPPORT |
| 7 | 2 | D3190-1 | CHAFING SHIELD |
| 8 | 2 | D3595-063-430 | RUBBER CUSHION |
| 9 | 14 | MS20601AD4W8 | RIVET (OR NAS9302B-4-8) |
| 10 | 4 | MS21920-22 | CLAMP |
| 11 | 2 | MS21920-25 | CLAMP (OR MS21920-24) |
| 12 | A/R | MAGNOBOND 6398 | ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947- 100, TYPE II, CLASS 2 ADHESIVE) |

GENERAL NOTES:

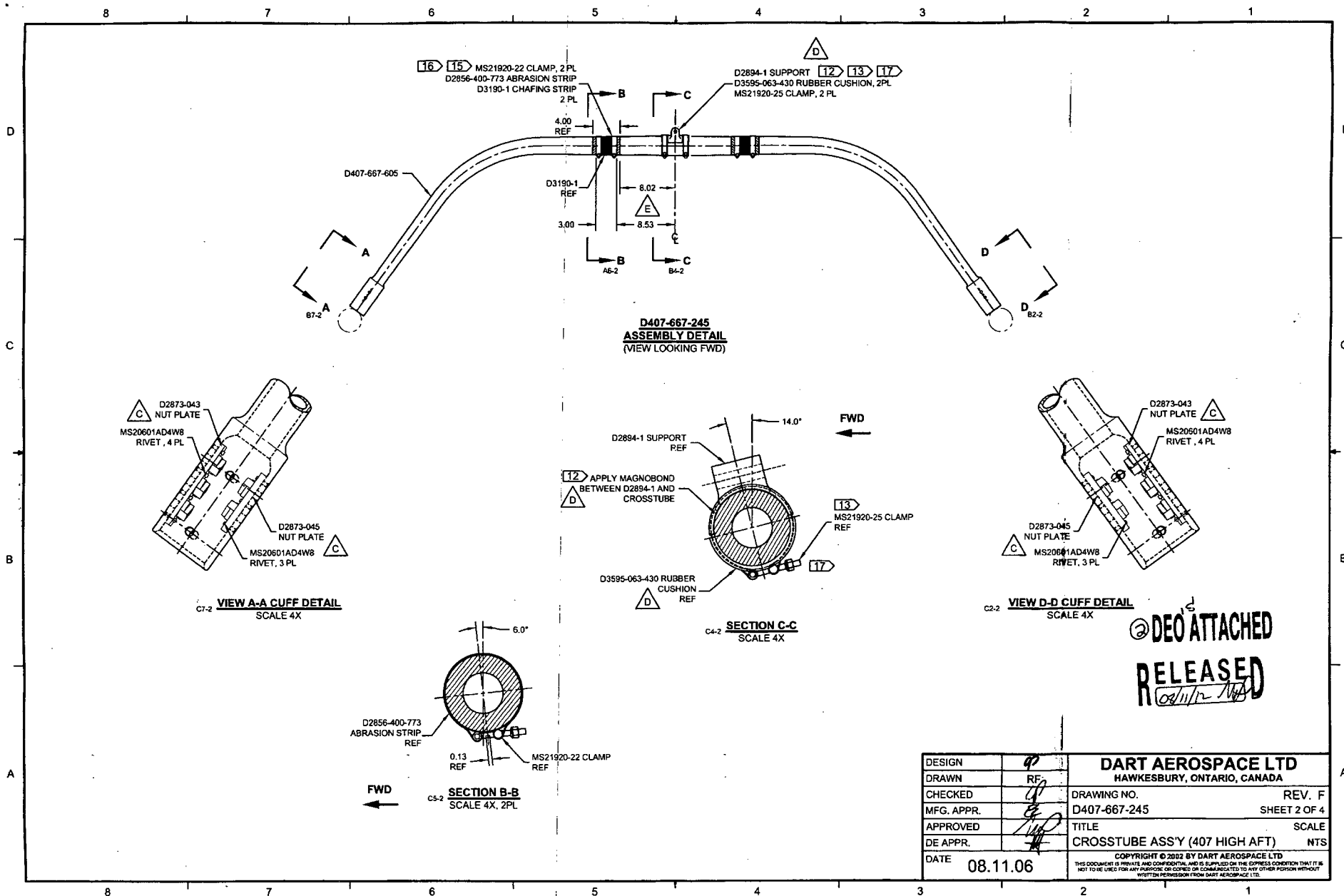
- 1) MATERIAL: MANUFACTURED FROM D6011-115
FINISHED LENGTH = 112.91±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D407-667-245" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 27.7 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN-OFF PART. BLEND OUT EDGE LONGITUDINALLY. TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 6 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2894-1 CENTER SUPPORT USING A 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-25 CLAMPS WITH D3595-063-430 RUBBER CUSHIONS TO SECURE D2894-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE CROSSTUBE SUPPORT.
NOTE: MS21920-24 CLAMPS CAN BE USED TO ACCOMMODATE VARYING DIAMETERS. ENSURE THERE IS A MINIMUM OF 1.5 THREADS IN SAFETY ON THE NUTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) INSTALL D2856-400-773 ABRASION STRIP WITH A 0.13 (REF) GAP ON BOTTOM SIDE OF CROSSTUBE, PER QSI 035.
- 16) INSTALL D3190-1 CHAFING SHIELDS SO THAT OVERLAP IS ON BOTTOM SIDE OF CROSSTUBE OPPOSITE D2894-1 SUPPORT.
- 17) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

1.16464 MJS
14-04-16

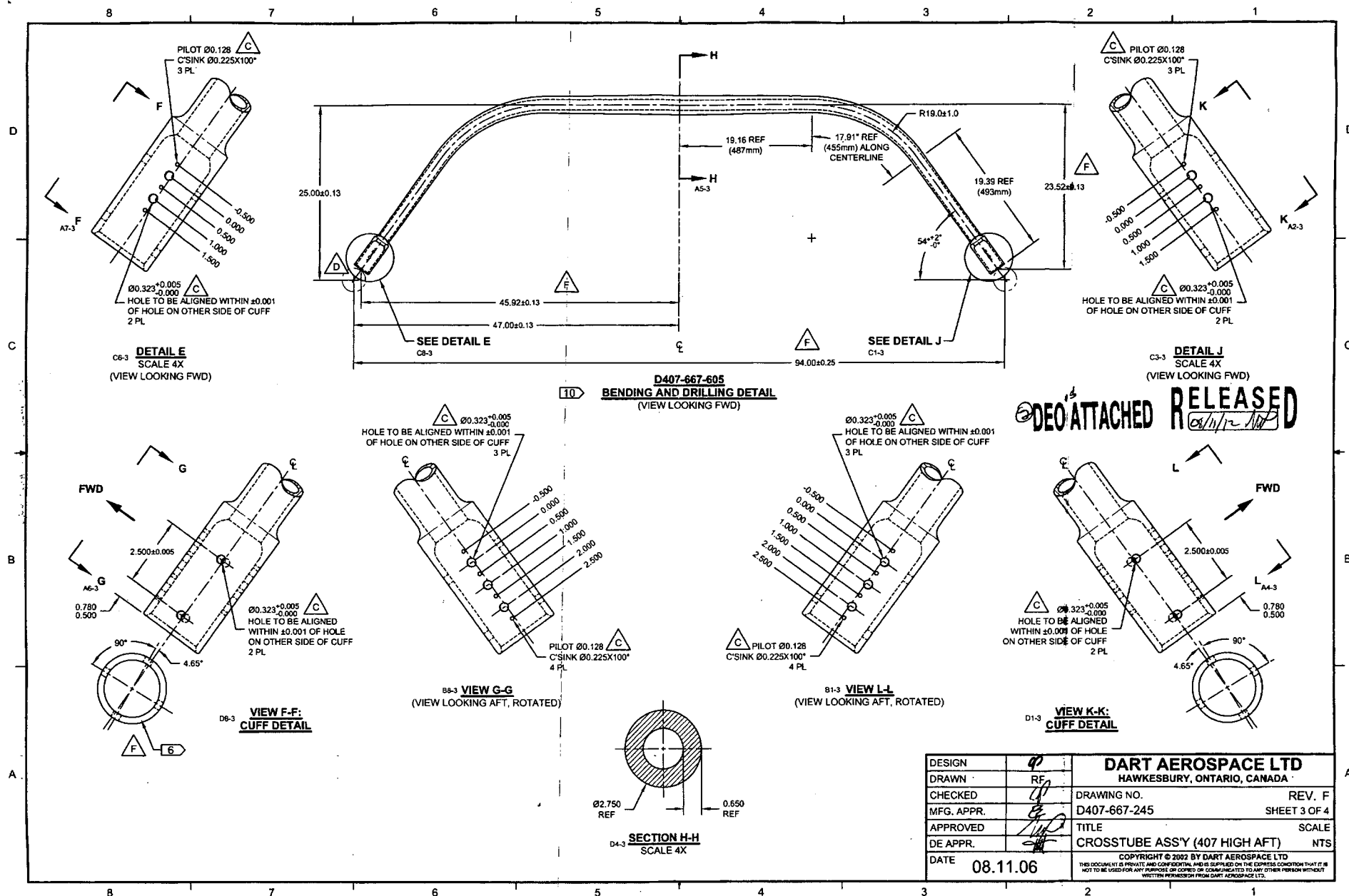
DEO ATTACHED
RELEASED
08/11/12

| | | | |
|------------|---|----|----------|
| F | REFORMAT NOTES TO NEW STANDARDS (ZN B8-1); RELOCATED FLAG # 6 (ZN A8-3) PER NCR 210; REMOVED REF. & ADD TOLERANCES (ZN C6-3, C4-3 & D2-3) | RF | 08.11.06 |
| E | 8.02 AND 8.53 WERE 8.40 AND 8.90 (ZN D5-2); REORGANIZED VIEWS AND REFORMATED DRAWING TO CURRENT STANDARDS. REASONS: CLAMPS MOVED 0.375 TOWARD CL TO ELIMINATE INTERFERENCE WITH AIRCRAFT MOUNTS. REFERENCE: PAR#08-21 AND ECN#1225 | MB | 08.07.24 |
| D | ADD VIEW FOR OEM SKID HOLES, ROTATE ORIENTATION OF CLAMPS SECTION F-F. REMOVE -851 ABRASION STRIP, ADD MAGNOBOND 6398, ADD CUSHION | PH | 07.02.07 |
| C | ADD HOLES AND NUT PLATES FOR COMPATIBILITY WITH BHT/AA SKIDTUBES | PH | 05.07.26 |
| B | ADD CHAFING SHIELD | CP | 03.05.21 |
| A | NEW ISSUE | CP | 02.05.13 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | 90 | | |
| DRAWN | RF | | |
| CHECKED | 9 | | |
| MFG. APPR. | 9 | | |
| APPROVED | 9 | | |
| DE APPR. | 9 | | |
| DATE | 08.11.06 | | |

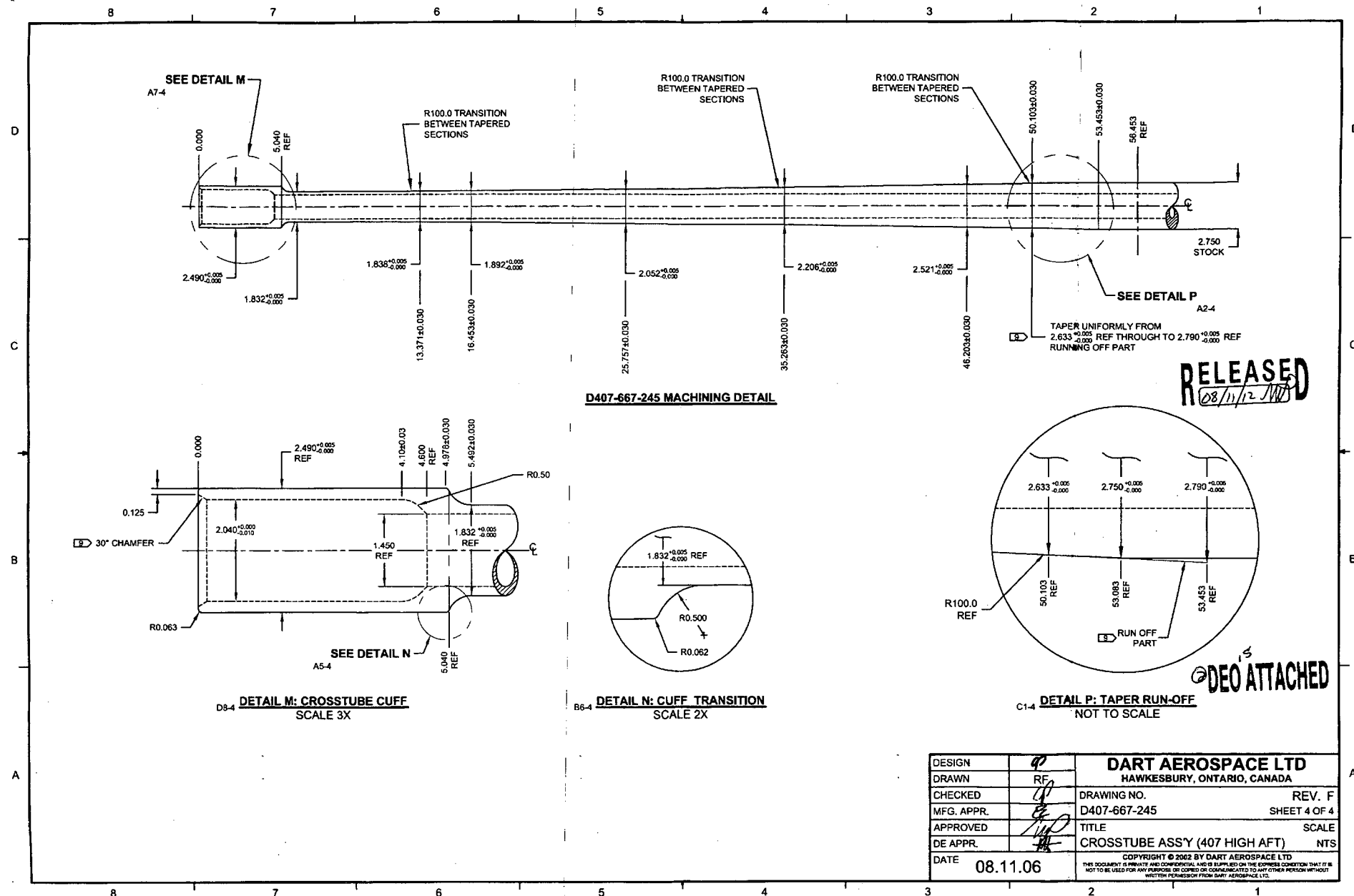
| | |
|--|------------------------|
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| DRAWING NO. D407-667-245 | REV. F SHEET 1 OF 4 |
| TITLE CROSSTUBE ASSY (407 HIGH AFT) | SCALE NTS |
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2 DEO ATTACHED
RELEASED
08/11/06



| | | | |
|------------|----------|--|--------------|
| DESIGN | 07 | DART AEROSPACE LTD | |
| DRAWN | RF | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | 07 | DRAWING NO. | REV. F |
| MFG. APPR. | 07 | D407-667-245 | SHEET 3 OF 4 |
| APPROVED | 07 | TITLE | SCALE |
| DE APPR. | 07 | CROSSTUBE ASS'Y (407 HIGH AFT) | NTS |
| DATE | 08.11.06 | COPYRIGHT © 2003 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR FOR THE DISSEMINATION OF INFORMATION TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. | |



| | | | | | | | |
|-----------------------------|--|---------------|---|---------------|--------------------------------|---------------------------|--------------|
| DRAWING NO. D407-667-245 | TITLE CROSSTUBE ASSY (407 HIGH AFT) | REV. F | DART AEROSPACE LTD ENGINEERING ORDER | | D.E.O. NO. D407-667-245-F-1 | SHEET NO. SHEET 1 OF 2 | SCALE NTS |
| DRAWN | CHECKED | MFG. APPR. | APPROVED | DE APPR. | | | |
| DATE 11.04.08 | DATE 11.04.12 | DATE 11.04.12 | DATE 11.04.12 | DATE 11.04.12 | | | |

PURPOSE:

REMOVED ABRASION STRIP IN FAVOR OF A THIN LAYER OF PROSEAL 890.

CHANGE:

PARTS LIST IS AMENDED AS FOLLOWS:

IS:

| Item | Qty -245 | Part Number | Description |
|------|-------------|---------------|----------------|
| 3 | 0 | D2856-400-773 | ABRASION STRIP |

WAS:

| | | | |
|---|---|---------------|----------------|
| 3 | 2 | D2856-400-773 | ABRASION STRIP |
|---|---|---------------|----------------|

NOTES 2 AND 15, SHEET 1 ARE AMENDED AS FOLLOWS:

IS:

- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
MASK UNDERSIDE OF CROSSTUBE AS SHOWN (HATCHED AREA) AND
PAINT OUTSIDE PER DART QSI 005 4.2
REMOVE MASKING AND APPLY CLEAR COAT
- 15) APPLY A THIN COAT OF PROSEAL 890 ON INSIDE CONCAVE SURFACE OF D3190-1
CHAFING SHIELDS AND LET CURE PER MANUFACTURER'S INSTRUCTIONS. INSTALL
PROSEALED D3190-1 CHAFING SHIELDS ONTO CROSSTUBE BY APPLYING A THIN COAT
OF PROSEAL 890 ONTO CROSSTUBE. BE SURE TO ELIMINATE ANY AIR GAPS.

WAS:

- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 15) INSTALL D2856-400-773 ABRASION STRIP WITH A 0.13 REF GAP ON BOTTOM SIDE OF
CROSSTUBE PER QSI 035.

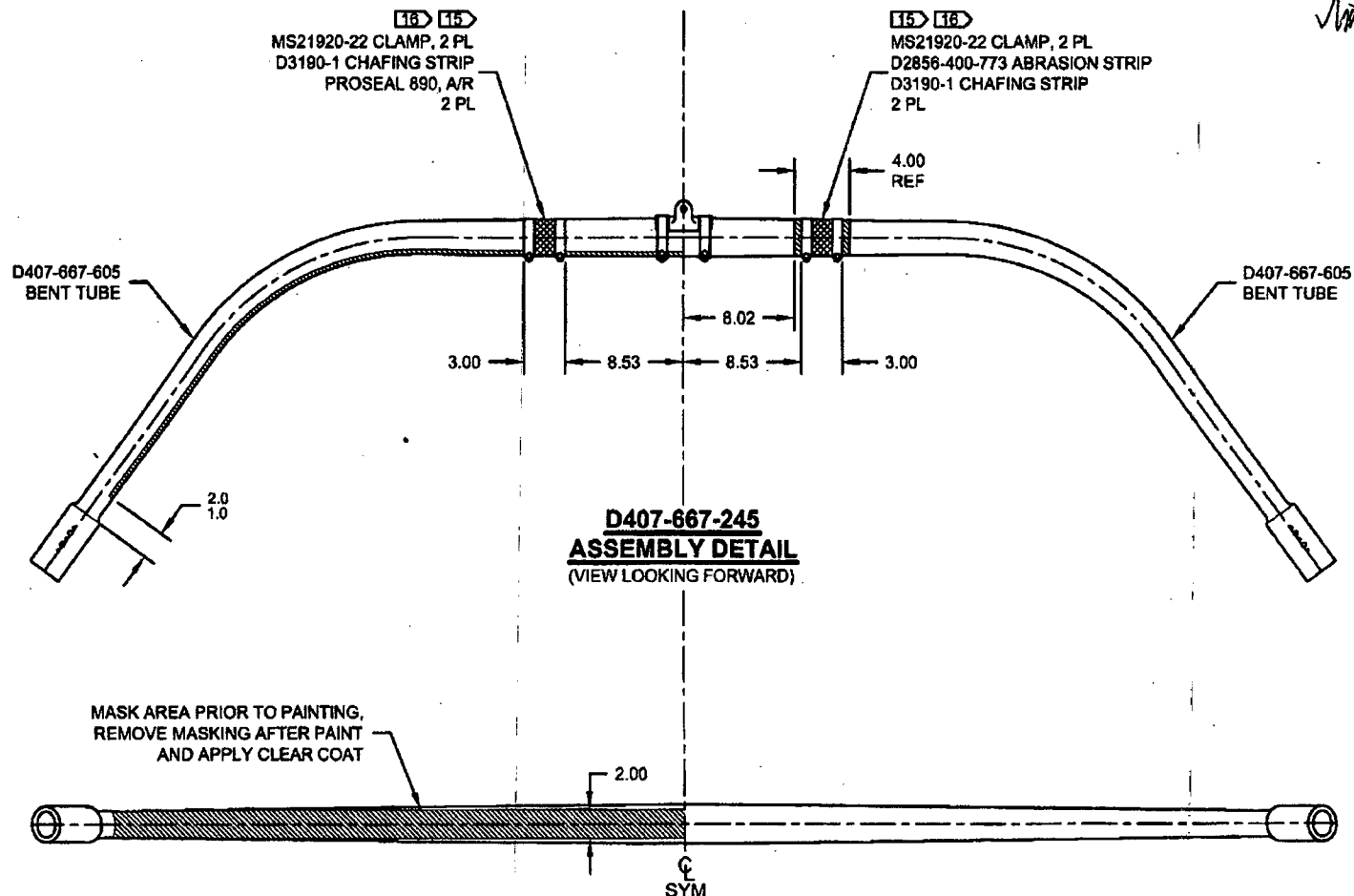
RELEASED
2011-04-18
[Signature]

| | | | | | | |
|-----------------------------|--|---------------------|---|--------------------------------|---------------------------|--------------|
| DRAWING NO. D407-667-245 | TITLE CROSSTUBE ASSY (407 HIGH AFT) | REV. F | DART AEROSPACE LTD ENGINEERING ORDER | D.E.O. NO. D407-667-245-F-1 | SHEET NO. SHEET 2 OF 2 | SCALE NTS |
| DRAWN | CHECKED <i>UP</i> | MFG. APPR. <i>E</i> | APPROVED <i>MP</i> | DE APPR. <i>H</i> | | |
| DATE 11.04.08 | DATE 11.04.11 | DATE 11.04.12 | DATE 11/04/12 | DATE 11.04.12 | | |

IS:

WAS:

RELEASED
2011-04-18
W



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| | | | | | | | |
|-----------------------------|---|-------------------------|---|--|--------------------------------|---------------------------|--------------|
| DRAWING NO. D407-667-245 | TITLE CROSSTUBE ASS'Y (407 HIGH AFT) | REV. F | DART AEROSPACE LTD ENGINEERING ORDER | | D.E.O. NO. D407-667-245-F-2 | SHEET NO. SHEET 1 OF 1 | SCALE NTS |
| DRAWN <i>JP</i> | CHECKED <i>ASS</i> | MFG. APPR. <i>ES</i> | APPROVED <i>WP</i> | | DE APPR. <i>th</i> | | |
| DATE 11.09.07 | DATE 11.09.19 | DATE 11.09.19 | DATE 11.09.19 | | DATE 11.09.19 | | |

PURPOSE:

REPLACE MAGNOBOND WITH 3M DP460 SCOTCH-WELD EPOXY ADHESIVE

CHANGE:

IS:

| Item | Qty -245 | Part Number | Description |
|------|-------------|-------------------|--------------------------------|
| 12 | A/R | SCOTCH-WELD DP460 | EPOXY ADHESIVE, 3M SCOTCH-WELD |

WAS:

| | | | |
|----|-----|----------------|---|
| 12 | A/R | MAGNOBOND 6398 | ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE) |
|----|-----|----------------|---|

NOTE 12 & 17, SHEET 1 IS AMENDED AS FOLLOWS:

IS:

- 12) INSTALL D2894-1 CENTER SUPPORT USING A 0.04" TO 0.07" THICK LAYER OF SCOTCH-WELD DP460 PER QSI 015. LET CURE FOR 24 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER ADHESIVE HAS CURED FOR 24 HOURS.

WAS:

- 12) INSTALL D2894-1 CENTER SUPPORT USING A 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

RELEASED
2011-09-29
md





skyservice

Work Order Traveler
Sky Service F.B.O. Inc.

Page: 1 of 1

DOT APP 53-89 / EASA 145.7142 / BDA AMO 385

| | | | |
|--------------------------|-------------------------------|---------------|------------------|
| WO #: MWO20715 | Customer: Dart Aerospace Ltd. | Dept: NDT YUL | Reference: 23989 |
| Descr: | PN: | S/N: | Qty: 1 |
| Make: | Model: | Reg: | A/C S/N: |
| TSN: 0 | CSN: 0 | TSO: 0 | |
| Task: UNSCHEDULED | | | Sequence: 1 |

Work Required:

CARRY OUT NDT INSPECTION (LIQUID PENETRANT) ON 5 CROSSTUBES

ITEM ID: D407-667-205 AFT CROSSTUBE

- 1 - WORK ORDER ID#: 116463
- 2 - WORK ORDER ID#: 116461
- 3 - WORK ORDER ID#: 112865
- 4 - WORK ORDER ID#: 112864
- 5 - WORK ORDER ID#: 116464

DAS
27
9-89

14/4/09

| Action Taken: | | | | | | Date: | Initial/Stamp: |
|---|----------|-----|-----|-------|---------|-------------|----------------|
| LIQUID PENETRANT INSPECTION CARRIED OUT ON ITEMS LISTED ABOVE (ITEMS 1-5) AS PER ASTM1417M-13 | | | | | | APR 29 2014 | |
| NO CRACK FOUND | | | | | | | |
| Pen: ZL-56 BATCH# 09H094 EXP. DATE: AUG 2014, DEV: SKD-S2 EXP. DATE: OCT2017 CLEANER: SKC-S EXP. DATE: APR 2018 | | | | | | | |
| Description | Location | P/N | Qty | Batch | S/N Off | S/N On | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

| | | |
|---------------------------------|---------------------------------------|----------------------|
| Signature: | ACA/SCA Stamp DOT APP 177 53-89 | Date: APR 29 2014 |
| Name: ANTONINO MARCHETTA | | |

| | | | | | | | |
|-----------------------------|---|------------------|---|--|--------------------------------|---------------------------|--------------|
| DRAWING NO. D407-667-245 | TITLE CROSSTUBE ASS'Y (407 HIGH AFT) | REV. F | DART AEROSPACE LTD ENGINEERING ORDER | | D.E.O. NO. D407-667-245-F-2 | SHEET NO. SHEET 1 OF 1 | SCALE NTS |
| DRAWN JP | CHECKED ASS | MFG. APPR. B | APPROVED WP | | DE APPR. th | | |
| DATE 11.09.07 | DATE 11.09.19 | DATE 11.09.19 | DATE 11.09.19 | | DATE 11.09.19 | | |

PURPOSE:

REPLACE MAGNOBOND WITH 3M DP460 SCOTCH-WELD EPOXY ADHESIVE

CHANGE:

IS:

| Item | Qty -245 | Part Number | Description |
|------|-------------|-------------------|--------------------------------|
| 12 | A/R | SCOTCH-WELD DP460 | EPOXY ADHESIVE, 3M SCOTCH-WELD |

WAS:

| | | | |
|----|-----|----------------|---|
| 12 | A/R | MAGNOBOND 6398 | ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE) |
|----|-----|----------------|---|

NOTE 12 & 17, SHEET 1 IS AMENDED AS FOLLOWS:

IS:

- 12) INSTALL D2894-1 CENTER SUPPORT USING A 0.04" TO 0.07" THICK LAYER OF SCOTCH-WELD DP460 PER QSI 015. LET CURE FOR 24 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER ADHESIVE HAS CURED FOR 24 HOURS.

WAS:

- 12) INSTALL D2894-1 CENTER SUPPORT USING A 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

RELEASED
2011-09-29
md

Work Order ID 116464

April-16-14 11:01:12 AM

116464

Page 1

Item ID: D407-667-205

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Aft Crosstube

Start Date: 4/16/14 Start Qty: 1.00

1

Cust Item ID:

Required Date: 5/01/14 Req'd Qty: 1.00

1

Customer:

Reference:

Run Start *NR1*

Approvals: Process Plan: MLS Date: 14-04-16

Tooling:

Date:

Stop *NR2*

QC: _____ Date: _____

SPC (Y/N): _____

Date: _____

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|---|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| Draw Nbr | Revision Nbr | | | | | | | | |
| D407-667-245 | Rev F/DEO | | | | | | | | |
| 100 | Document Control | 0.00 | | | | | | | |
| *100* | DOCUMENT CONTROL | | | | | | | | |
| DC | Memo | 0.00 | | | | | | | |
| Doc.Control -USB or Paperwork | Photocopy bluefile and create labels as per PPP D407-667-205 CHG008 | | | | | | | | |
| 110 | Pick Kit | 0.00 | | | | | | | |
| *110* | Packaging | | | | | | | | |
| Packaging | Memo | 0.00 | | | | | | | |
| Packaging | | | | | | | | | |
| 120 | | 0.00 | | | | | | | |
| *120* | BENDING MACHINE - CROSSTUBES | | | | | | | | |
| CNC Bend 1 | Memo | 0.00 | | | | | | | |
| CNC Delta 100 Bender | 1-Bend tube as per Dwg D407-667-245 using CNC bender program 407 Aft and Folio 21 | | | | | | | | |

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